

Application No.: 10/629,850Docket No.: 30017003-2 US (1509-408)**REMARKS**

Initially, applicants note the rejections of claims 16 and 22 refer to Haines that is not of record. The examiner is requested to provide a complete citation of the Haines reference and to indicate the statutory basis, if any, for the rejection of claims 16 and 22 on Haines.

Independent claims 1, 16 and 22 have been amended to define applicants' contribution to the art with greater particularity as have former independent claims 23 and 25 that are now respectively dependent on claims 1 and 16. In addition, claims 23 and 25, as well as claims 24 and 26-28, now positively indicate coverage of a program storage medium, as well as a program storage device. Dependent claims 2, 10-12, 17, 19 and 28 have been amended to define applicants' contribution to the art with greater particularity. Claims 29-39, the subject matter of which is disclosed in connection with Figure 8, have been added to provide applicants with the protection to which they are deemed entitled. Claims 20 and 21 have been canceled to expedite prosecution and reduce filing fees since the subject matter thereof is essentially covered by claim 19. Support for the amendments to claims 1, 16 and 22 is found on page 12, lines 19 and 29, page 13, lines 2-4.

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The claims, as submitted, distinguish over the applied reference, Ohta (US 2001/0029531). Each of independent claims 1, 16 and 22 requires a network to include plural printers and an access point for enabling messages from a wireless mobile device to be relayed to the plural printers via the network and to send at least one user preference for printer capability for a file to be printed from the mobile device to the access point, thence to a networked print controller. In Ohta messages from portable digital device 11 are not transmitted to access point 16; instead, as illustrated in Figure 4 and described in paragraph 0040, the signal from portable digital device 11 is transmitted to print station 12C. In the embodiments of Figures 15A, 15B, 16A, 16B, 17A, 17B, 19A, 19B, 20A, 20B, 21A, 21B, 23A, 23B, 24A, 24B, 25A, and 25B there is no transmission to access point 16; instead, there is selective transmission to one of plural print stations in the range of portable digital device 11. Such an arrangement is disadvantageous because it requires each print station to include a receiver. With the method and apparatus of claims 1, 16 and 22, similar coverage can be obtained without having a receiver at each of the print stations and network traffic can be reduced.

Claims 2 and 24, as amended, distinguish over Ohta by requiring the matching to include combining indications of the measured wireless signal strength with a plurality of stored wireless signal strengths between the access point in each of the printer locations and comparing the combined indications. In Ohta the wireless signal strength is measured at each printer, thereby requiring more measuring equipment and network traffic than the invention of claims 2 and 24.

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Claim 11 distinguishes over Ohta by requiring a plurality of access points and the strongest signal strengths of the printer and mobile device to be equal and by selecting the printer that is to print the file by selecting the printer having its second strongest signal strength. In Ohta there is only one access point, there is no indication of the strongest signal strengths to be equal and the selected printer is always the printer having the strongest signal strength.

Claim 12 distinguishes over Ohta by requiring the network to have plural access points and by selecting the printer that is to print the file by selecting the printer having the largest number of non-zero signal strengths of the access points in common with the measured signal strengths of the mobile device.

Newly added claims 29-39 distinguish over Ohta by requiring, inter alia,

(a) measuring the strengths of the signals as received at the more than one access points as transmitted from the mobile device,

(b) combining (i) indications of the measured signal strengths with (ii) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

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(c) selecting the printer on the basis of the indications of the total signal strengths.

In view of the foregoing amendments and remarks, favorable reconsideration and allowance are in order.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 08-2025 and please credit any excess fees to such deposit account.

Respectfully submitted,
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29. (New) The method of claim 1 wherein the network includes plural access points that are wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of access points via the network, the method further comprising:

measuring the strength of the signals as received at the plurality of access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

30. (New) The method of claim 16 wherein the network includes plural access points that are wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

31. (New) The apparatus of claim 22 wherein the network includes plural access points that are adapted to be wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with both the plurality of the access points via the network, the print controller being arranged for:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

32. (New) The program storage medium or device of claim 23 wherein the network includes plural access points that are adapted to be wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

33. (New) The program storage media or device of claim 25 wherein the network includes plural access points that are adapted to be wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

34. (New) A method of selecting one of a plurality of printers in a network to receive a file to be printed on the instigation of a mobile device, the network including the plurality of the printers and plural access points that are wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

35. (New) The method of claim 34 in combination with the step of transmitting the file to the selected printer for printing.

36. (New) In combination, a mobile device adapted to have a file that a user of the mobile device desires to have printed, the mobile device including a wireless transmitter,

a network including a plurality of access points and a plurality of printers, the network being arranged so that (a) more than one of the access points is adapted to receive a wireless signal, including the file, from the mobile device, and (b) more than one of the printers is arranged to communicate with more than one of the access points via the network, the network further comprising a controller arrangement for:

(a) measuring the strengths of the signals as received at the more than one access points as transmitted from the mobile device,

(b) combining (i) indications of the measured signal strengths with (ii) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

(c) selecting the printer on the basis of the indications of the total signal strengths.

37. (New) The combination of claim 37 wherein the controller is arranged for transmitting the file to the selected printer for printing.

38. (New) A controller for a network having a plurality of access points and a plurality of printers, more than one of the access points being adapted to receive wirelessly a signal including a file that a user of a wireless mobile device desires to have printed, the network being arranged so that more than one of the printers is arranged to communicate with more than one of the access points via the network, the controller being arranged for:

- (a) measuring the strengths of the signals as received at the more than one access points as transmitted from the mobile device,
- (b) combining (i) indications of the measured signal strengths with (ii) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and
- (c) selecting the printer on the basis of the indications of the total signal strengths.

39. (New) The controller of claim 38 wherein the controller is arranged to control transmission of the file to the selected printer for printing.

Remarks

The specification has been amended to insert a cross-reference to the far application relied on for priority.

Independent claims 1, 16 and 22 have been amended to define applicants' contribution to the art was greater particularity as have former independent claims 23 and 25 that are now respectively dependent on claims 1 and 16. In addition, claims 23 and 25, as well as claims 24 and 26-28, now positively indicate a program storage medium, as well as a program storage device, is covered. Dependent claims 2, 10-12, 17, 19 and 28 have been amended to define applicants' contribution to the art was greater particularity. Claims 29-39 have been added to provide applicants with the protection to which they are deemed entitled. Claims 20 and 21 have been canceled to expedite prosecution and reduce filing fees since the subject matter thereof is essentially covered by claim 19.

(New) The method of claim 1 wherein the network includes plural access points that are wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of access points via the network, the method further comprising:

measuring the strength of the signals as received at the plurality of access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strains for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

(New) The method of claim 16 wherein the network includes plural access points that are wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

(New) The apparatus of claim 22 wherein the network includes plural access points that are adapted to be wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with both the plurality of the access points via the network, the print controller being arranged for:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the

plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

(New) The program storage medium or device of claim 23 wherein the network includes plural access points that are adapted to be wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

33. (New) The program storage media or device of claim 25 wherein the network includes plural access points that are adapted to be wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

34. (New) A method of selecting one of a plurality of printers in a network to receive a file to be printed on the instigation of a mobile device, the network including the plurality of the printers and plural access points that are wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

35. (New) The method of claim 34 in combination with the step of transmitting the file to the selected printer for printing.

36. (New) In combination, a mobile device adapted to have a file that a user of the mobile device desires to have printed, the mobile device including a wireless transmitter,

a network including a plurality of access points and a plurality of printers, the network being arranged so that (a) more than one of the access points is adapted to receive a wireless signal, including the file, from the mobile device, and (b) more than one of the printers is arranged to communicate with more than one of the access points via the network, the network further comprising a controller arrangement for:

- (a) measuring the strengths of the signals as received at the more than one access points as transmitted from the mobile device,
- (b) combining (i) indications of the measured signal strengths with (ii) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and
- (c) selecting the printer on the basis of the indications of the total signal strengths.

37. (New) The combination of claim 37 wherein the controller is arranged for transmitting the file to the selected printer for printing.

38. (New) A controller for a network having a plurality of access points and a plurality of printers, more than one of the access points being adapted to receive wirelessly a signal including a file that a user of a wireless mobile device desires to have printed, the network being arranged so that more than one of the printers is arranged to communicate with more than one of the access points via the network, the controller being arranged for:

(a) measuring the strengths of the signals as received at the more than one access points as transmitted from the mobile device,

(b) combining (i) indications of the measured signal strengths with (ii) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

(c) selecting the printer on the basis of the indications of the total signal strengths.

39. (New) The controller of claim 38 wherein the controller is arranged to control transmission of the file to the selected printer for printing.

Remarks

The specification has been amended to insert a cross-reference to the far application relied on for priority.

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The claims, as submitted, distinguish over the applied reference, Ohta (US 2001/0029531). Each of independent claims 1, 16 and 22 requires a network to include plural printers and an access point for enabling messages from a wireless mobile device to be relayed to the plural printers of via the network and to send at least one user preference for printer capability for a file to be printed from the mobile device to the access point, thence via the network to a networked print controller. In Ohta vestiges from portable digital device 11 are not transmitted to access point 16; instead, as illustrated in Figure 4 and described in paragraph 0040 the signal from portable digital device 11 is transmitted to print station 12C. In the embodiments of Figures 15A, 15B, 16A, 16B, 17A, 17B, 19A, 19B, 20A, 20B, 21A, 21B, 23A, 23B, 24A, 24B, 25A, and 25B there is no transmission to access point 16; instead, there is selective transmission to one of plural print stations in the range of portable digital device 11. Such an arrangement is disadvantageous because it requires each print station to include a receiver. With the claimed method and apparatus, similar coverage can be obtained without having a receiver at each of the print stations.

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